



CITY COUNCIL  
**Staff Report**

**Meeting Date:** March 21, 2023

**To:** Mayor and City Council

**From:** Scott Chadwick, City Manager

**Staff Contact:** Jennifer Jesser, Senior Planner  
jennifer.jesser@carlsbadca.gov, 442-339-2637

**Subject:** Fiscal Year 2021-22 Growth Management Program Monitoring Report

**District:** All

**Recommended Action**

Hold a public hearing and adopt a resolution accepting the Fiscal Year 2021-22 Growth Management Program Monitoring Report and finding that it satisfies the city's monitoring requirements.

**Executive Summary**

The city's Growth Management Program has guided the growth of Carlsbad since the 1980s. The City Planner presents this report on the city's Growth Management Program to the City Council each year in keeping with Carlsbad Municipal Code Section 21.90 – Growth Management, subsection 130(d)) The report includes the status of development activity, the adequacy of public facilities and public facility financing.

This year's report shows that all of the public facilities identified in the Fiscal Year 2021-22 Growth Management Program Status Report meet the required facility performance standards for FY 2021-22.

Exhibit 1 is a resolution accepting the Fiscal Year 2021-22 Growth Management Program Monitoring Report and finding it satisfies the city's monitoring requirements, as established in Section 21.90.130(d). The Fiscal Year 2021-22 Growth Management Program Monitoring Report is included as Attachment A to Exhibit 1.

**Explanation & Analysis**

**Background**

The City Council approved an ordinance in 1986 that established a growth management program with limits, or caps, on residential density and a requirement that new development must plan, construct and pay for the public infrastructure and facilities needed to serve the residents who will live in the new homes created. Developers either build the improvements themselves or pay fees to the city so the city can provide them.

Carlsbad voters affirmed the general principles of Carlsbad's Growth Management Program when they passed Proposition E in November 1986.

Also in 1986, the City Council approved a Citywide Facilities and Improvements Plan that included performance standards that the following eleven municipal facilities would need to meet to maintain Carlsbad's quality of life for all economic sectors of the Carlsbad community:

1. City administration
2. Library
3. Wastewater treatment
4. Parks
5. Drainage
6. Circulation
7. Fire
8. Open space
9. Schools
10. Sewer collection
11. Water distribution

These performance standards are applied citywide, by city quadrant, by the city's local facility management zones or by project site, depending on the facility. New development must comply with the Growth Management Program standards.

#### **FY 2021-22 Growth Management Program Monitoring Report**

The report includes:

- An analysis of the eleven public facility standards that determines the status and projected status of each facility when the community has been built out (i.e., fully developed). This analysis shows:
  - All 11 public facilities identified in the report meet the required performance standards for the reported time period.
  - The status of the circulation standard is reported in part, for the vehicle travel mode portion of the standard. The status of the pedestrian, bicycle and transit travel modes will be reported separately in Summer 2023 after the Traffic & Mobility Commission has reviewed the latest transportation counts.
  - When the city is built out, it is projected that additional facilities will be needed to meet the standard for libraries, parks, drainage, circulation, open space, sewer collection and water distribution.
- A summary of development activity during the reporting period:
  - Building permits were issued for 113 new dwelling units (42 primary dwelling units and 71 accessory dwelling units).
  - Building permits were issued 107,935 square feet of non-residential space.
- An updated resident population and existing dwelling unit inventory.
  - The total existing dwelling units in Carlsbad, as of June 30, 2022, is 46,934 and the existing population estimate is 117,800.

- An analysis of the Proposition E residential dwelling unit caps.
  - Proposition E limits the number of residential dwelling units in the city and requires that adequate public facilities be provided concurrent with development. To implement this, the Growth Management Ordinance allowed the city to halt development if adequate public facilities are not provided consistent with the public facility performance standards. More recent state housing laws have preempted the city's ability to require compliance with the dwelling unit caps or to stop development due to noncompliance, so the dwelling unit cap analysis is provided in the report for reference only. (Additional information about the state laws and the related resolution approved by the City Council is included in the report.)

### **Carlsbad Tomorrow Growth Management Citizens Committee**

The city is in the process of creating a new approach to managing growth in Carlsbad. The first step of this multi-year process included the creation of the Carlsbad Tomorrow Growth Management Citizens Committee. The committee's mission is to identify key elements that should be addressed in a new plan to manage growth in a way that maintains an excellent quality of life in Carlsbad and ensures compliance with state law. The City Council appointed 38 residents to serve on the committee on March 8, 2022.

The committee has met monthly since March 2022 and is nearing the completion of its work. A report on the committee's recommendations is anticipated to be presented to the City Council by June 2023.<sup>1</sup>

### **Fiscal Analysis**

There is no fiscal impact associated with this action.

### **Next Steps**

The Fiscal Year 2021-22 Growth Management Program Monitoring Report will be kept on file and posted on the city's website.

### **Environmental Evaluation**

This action does not require environmental review because it does not constitute a project within the meaning of the California Environmental Quality Act under California Public Resources Code Section 21065 in that it has no potential to cause either a direct physical change or a reasonably foreseeable indirect physical change in the environment.

### **Exhibits**

1. City Council resolution

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<sup>1</sup> More information about the city's Growth Management Program and the committee's work can be found at [carlsbadca.gov/city-hall/meetings-agendas/boards-commissions/growth-management-committee](http://carlsbadca.gov/city-hall/meetings-agendas/boards-commissions/growth-management-committee)

**RESOLUTION NO. \_\_\_\_\_**

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CARLSBAD, CALIFORNIA, ACCEPTING THE FISCAL YEAR 2021-22 GROWTH MANAGEMENT PROGRAM MONITORING REPORT AND FINDING THAT IT SATISFIES THE CITY'S MONITORING REQUIREMENTS

WHEREAS, in 1986, the Carlsbad City Council adopted the Growth Management Program to ensure that adequate public facilities are provided concurrent with growth; and

WHEREAS, the Growth Management Program is implemented through Carlsbad Municipal Code Chapter 21.90 and the Citywide Facilities and Improvements Plan; and

WHEREAS, Carlsbad Municipal Code Section 21.90.130(d) requires the City Planner to provide to the City Council an annual Growth Management Program monitoring report that includes information on development activity, public facilities and improvements, and public facility financing.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Carlsbad, California, as follows:

1. That the above recitations are true and correct.
2. That the Fiscal Year 2021-22 Growth Management Program Monitoring Report satisfies Carlsbad Municipal Code Section 21.90.130(d) by providing information to the City Council regarding the status of the Carlsbad Growth Management Program for the fiscal year covering July 1, 2021 to June 30, 2022.
3. That the Fiscal Year 2021-22 Growth Management Program Monitoring Report (Attachment A) is accepted, and the City Planner shall file the report and post it to the city website.

PASSED, APPROVED AND ADOPTED at a Regular Meeting of the City Council of the City of Carlsbad on the \_\_\_ day of \_\_\_\_\_, 2023, by the following vote, to wit:

AYES:

NAYS:

ABSTAIN:

ABSENT:

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KEITH BLACKBURN, Mayor

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SHERRY FREISINGER, City Clerk  
(SEAL)

CITY OF CARLSBAD  
Fiscal Year 2021-22  
Growth Management Program Monitoring Report

July 1, 2021 through June 30, 2022

Carlsbad City Council

Keith Blackburn, Mayor  
Melanie Burkholder, District 1  
Vacant, District 2  
Priya Bhat-Patel, District 3  
Teresa Acosta, District 4

*March 2023*

*Report prepared in cooperation with the following City of Carlsbad district and departments:*

*Carlsbad Municipal Water District  
Community Development  
Community Services  
Fire  
Library & Cultural Arts  
Parks & Recreation  
Public Works*

# Introduction

This Growth Management Program Monitoring report for fiscal year (FY) 2021-22 (July 1, 2021 – June 30, 2022), is provided in accordance with Carlsbad Municipal Code Section 21.90.130(d), which requires the preparation of an annual monitoring report on the Growth Management Program.

## GROWTH MANAGEMENT PROGRAM OVERVIEW

The principle behind the Growth Management Program is to ensure that new development and growth does not outpace the performance standards established for public facilities such as circulation facilities, libraries, parks, open space, and facilities to provide water and sewer services. The City of Carlsbad's Growth Management Program was created in 1986 and is comprised of:

- The Growth Management Ordinance (Carlsbad Municipal Code Chapter 21.90);
- The Citywide Facilities and Improvements Plan; and
- Proposition E, passed by voters in November 1986 and established a cap on the number of residential dwelling units in the city.
- Local Facility Management Plans for 25 local facility management plans

The Citywide Facilities and Improvements Plan specifies the performance standards for 11 public facilities, as listed in Table 1. To ensure that the public facility performance standards could be achieved, the Growth Management Program directed the development of financing and management plans describing how/when the public facilities would be developed. The subsections below provide additional information.

Table 1: Citywide Facilities and Improvements Plan Public Facility Performance Standards

Public Facility	Performance Standard	Status See Page
City Administrative Facilities <sup>1</sup>	1,500 sq. ft. per 1,000 population must be scheduled for construction within a five-year period or prior to construction of 6,250 dwelling units, beginning at the time the need is first identified.	11
Library <sup>1</sup>	800 sq. ft. (of library space) per 1,000 population must be scheduled for construction within a five-year period or prior to construction of 6,250 dwelling units, beginning at the time the need is first identified.	13
Wastewater Treatment	Sewer plant capacity is adequate for at least a five-year period.	14
Parks <sup>1</sup>	3.0 acres of Community Park or Special Use Area per 1,000 population within the Park District must be scheduled for construction within a five-year period beginning at the time the need is first identified. The five-year period shall not commence prior to August 22, 2017.	15
Drainage	Drainage facilities must be provided as required by the city concurrent with development.	17

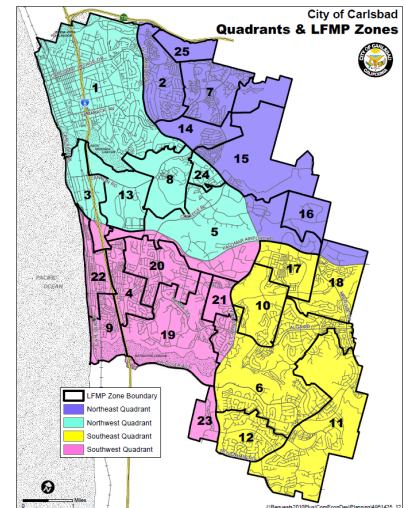
<sup>1</sup> The performance standards for city administrative facilities, library facilities, and parks are stated in terms of population, which is discussed in the subsection below entitled "Population."

Public Facility	Performance Standard	Status See Page
Circulation	Implement a comprehensive livable streets network that serves all users of the system – vehicles, pedestrians, bicycles and public transit. Maintain LOS D or better for all modes that are subject to this multi-modal level of service (MMLOS) standard, as identified in Table 3-1 of the General Plan Mobility Element, excluding LOS exempt intersections and streets approved by the City Council.	18
Fire	No more than 1,500 dwelling units outside of a five-minute response time.	27
Open Space <sup>2</sup>	Fifteen percent of the total land area in the Local Facility Management Zone (LFMZ) exclusive of environmentally constrained non-developable land must be set aside for permanent open space and must be available concurrent with development.	28
Schools <sup>2</sup>	School capacity to meet projected enrollment within the Local Facility Management Zone (LFMZ) as determined by the appropriate school district must be provided prior to projected occupancy.	33
Sewer Collection System	Trunk-line capacity to meet demand, as determined by the appropriate sewer districts, must be provided concurrent with development.	34
Water Distribution System	Line capacity to meet demand as determined by the appropriate water district must be provided concurrent with development. A minimum of 10-day average storage capacity must be provided prior to any development.	36

## LOCAL FACILITY AND IMPROVEMENT PLANS

To develop a road map for how the above standards could be met, a Citywide Facilities and Improvements Plan was created in 1986 that detailed how compliance with the performance standards will be achieved, how the necessary public facilities will be provided, and what financing mechanisms will be used for the facilities. Because planned development and growth varies throughout the city and at different levels, Carlsbad is divided into twenty-five local facilities management zones (Figure 1). Each Local Facility Management Zone has an adopted Local Facilities Management Plan. Consistent with the Growth Management Program and the Citywide Facilities and Improvements Plan, each Local Facility Management Plan must describe how the Local Facility Management Zone will be developed, how the required public facilities will be provided, and how those facilities will be funded.

Figure 1



<sup>2</sup> The performance standards for city administrative facilities, library facilities, and parks are stated in terms of population, which is discussed in the subsection below entitled “Population.”



## FAILURE TO MEET A PERFORMANCE STANDARD

The Growth Management Ordinance, Carlsbad Municipal Code Section 21.90.080, states:

“If at any time after preparation of a local facilities management plan the performance standards established by a plan are not met then no development permits or building permits shall be issued within the [affected] local zone until the performance standard is met or arrangements satisfactory to the city council guaranteeing the facilities and improvements have been made.”

As described in the following subsection, the city’s ability to stop development due to lack of compliance with a growth management performance standard has been largely preempted by recent state law.

## IMPACTS OF STATE LAW

According to the Growth Management Program, development activity cannot proceed if either the residential growth caps or public facility performance standards are not met. However, updates to state law and the city’s Housing Element have modified these components of the Growth Management Program.

In 2017 the California Legislature passed SB 166, known as the No Net Loss Law, which requires local jurisdictions to ensure that their housing element inventories can accommodate, at all times throughout the planning period, their remaining unmet share of the regional housing need. The California Department of Housing and Community Development (HCD) has taken the following positions with respect to Carlsbad: that failure to meet the GMP performance standards cannot be used as a basis for implementing a moratorium that precludes meeting Carlsbad’s share of the regional housing need, and that the GMP residential unit caps could not prevent the city from achieving consistency with the Housing Element inventory and SB 166. In 2019, the legislature passed SB 330, the Housing Crisis Act of 2019, which prohibits local jurisdictions from imposing moratoriums on housing development and using residential housing caps or other limits to regulate the number of housing units built within a jurisdiction.

As noted in the City’s May 5, 2020, staff report, Item 12,<sup>3</sup> Senate Bill 166 of 2017 states that “Each city, county, or city and county shall ensure that its housing element inventory... can accommodate, at all times throughout the planning period, its remaining unmet share of the regional housing need allocated pursuant to Section 65584.” Furthermore, where housing is an allowable use, Senate Bill 330 (2019)] prohibits a city from enacting a “development policy, standard or condition” that would have the effect of “imposing a moratorium or similar restriction or limitation on housing development ... other than to specifically protect against an imminent threat to the health and safety of persons residing in, or within the immediate vicinity of, the area subject to the moratorium...”

The following state laws limit the city’s ability to stop development:

- Senate Bill 166 (2017) states that “Each city, county, or city and county shall ensure that its housing element inventory... can accommodate, at all times throughout the planning period, its remaining unmet share of the regional housing need allocated pursuant to Section 65584.” The California Department of Housing and Community Development has taken the position that exceedances of the city’s growth management standards cannot constitute a basis for implementing a moratorium that precludes attainment of the city’s regional housing need allocation.
- Senate Bill 330 (2019) prohibits a city from enacting a “development policy, standard or condition” that would have the effect of “imposing a moratorium or similar restriction or limitation on housing development ... other than to specifically protect against an imminent threat to the health and safety of persons residing in, or within the immediate vicinity of, the area subject to the moratorium...” On April 17, 2020, the city

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<sup>3</sup> City Council May 5, 2020 Staff Report, Item 12 available at: <https://carlsbadca.swagit.com/play/05052020-1021#full-agenda>

received an opinion from the California Department of Housing and Community Development, which states in part that a "housing moratorium adopted pursuant to the City's [Growth Management Program] would be impermissible under Government Code section 66300 [Senate Bill 330]."

On April 17, 2020, the city received an opinion from the California Department of Housing and Community Development regarding the city's ability to implement a moratorium under the City's Growth Management Plan where vehicular deficiencies exist (CMC §§ 21.90.080 and 21.90.130) in light of SB 330. The department's opinion concludes that "the housing moratorium adopted pursuant to the city's GMP would be impermissible under Government Code section 66300." "HCD does not consider, however, that general concerns about the health and welfare of the citizenry-including traffic conditions that cause minor delays-present an imminent threat to health and safety." In City Council Resolutions No. 2020-104, No 2020-105, No 2020-106, No 2020-208, the City Council similarly concluded that "The City finds that Gov. Code § 65863(a) (SB 166 [2017]) and Gov. Code, § 66300(b)(1)(B)(i) (SB 330 [2019]) preempt the City from implementing a moratorium pursuant to Carlsbad Municipal Code §§ 21.90.080 and 21.90.130 and [Growth Management Program] regulations."

The city also reached similar conclusions with the adoption of its Housing Element in April 2021 (Resolution No. 2021-074.). That resolution states "Consistent with Updated Housing Element Program 2.2, the City Council finds that Government Code Sections 65583(a)(3) and 65863(a) (SB 166 [2017]) and Government Code Section 66300(b)(1)(D) (SB 330 [2019]) preempt the city from implementing residential growth management plan caps, residential quadrant limits, and residential control points. Consequently, the City finds that it cannot and will not enforce these residential caps, quadrant limits, and control points, including but not limited to those contained in the General Plan (including, but not limited to the Land Use and Community Design Element Table 2-3, Section 2.6, Policy 2-P.8(a) and (b), Policy 2- P.16(d), and Policy 2-P.57), Growth Management Plan (Proposition E); City Council Policy Statement No. 43, Carlsbad Municipal Code Chapter 21.90 including but not limited to CMC §§ 21.90.030 (b), 21.90.045 and 21.90.185."

## SUMMARY STATUS OF PUBLIC FACILITY PERFORMANCE STANDARDS AND DWELLING CAPS

As further detailed in this report and summarized in Tables 2 and 3, during FY 2021-22 the city met the Growth Management Program performance standards for the 11 public facilities and the residential dwelling caps.

Table 2: Public Facility Adequacy Status

Public Facility	FY 2021-22 Adequacy Status (Meets performance standard?)	Buildout Adequacy Status (Meets performance standard?)
City Administrative Facilities	Yes	Yes
Library	Yes	Additional facilities to be provided
Wastewater Treatment Capacity	Yes	Yes
Parks	Yes	Additional facilities to be provided
Drainage	Yes	Additional facilities to be provided
Circulation	Yes	Additional facilities to be provided
Fire	Yes	Yes
Open Space	Yes	Additional facilities to be provided
Schools	Yes	Yes
Sewer Collection System	Yes	Additional facilities to be provided
Water Distribution System	Yes	Additional facilities to be provided

### Growth Management Program (Proposition E) Dwelling Unit Cap Analysis

As described in the “Impacts of State Law” section above, state housing laws preempt the city’s ability to require compliance with the Proposition E dwelling unit caps. However, the number of dwelling units is reported here for reference. Proposition E states “the maximum number of residential dwelling units to be constructed or approved in the city after November 4, 1986, is as follows: Northwest Quadrant 5,844; Northeast Quadrant 6,166; Southwest Quadrant 10,667; Southeast Quadrant 10,801.” When added to the existing dwelling units in November 1986, this resulted in dwelling unit caps as shown in Table 3. All quadrants comply with the dwelling unit caps established by Proposition E.

Table 3 represents the number of dwelling units that could be built (based on the applicable growth management control point density) on all parcels that have a residential land use designation according to the 2015 General Plan Land Use Map and subsequent approved amendments. The “total existing and unbuilt planned dwellings”, as shown in Table 3, assumes all parcels with a residential land use designation will be developed with residential dwellings, including land that is currently developed with non-residential uses (e.g., churches and professional care facilities).

Table 3: FY 2021-22 Residential Dwelling Status Per Quadrant

As of June 30, 2022							
	NORTHWEST QUADRANT			NORTHEAST QUADRANT	SOUTHWEST QUADRANT	SOUTHEAST QUADRANT	CITYWIDE TOTAL
	Outside Village	Village	Total NW				
<b>Proposition E Dwelling Cap</b>			<b>15,370</b>	<b>9,042</b>	<b>12,859</b>	<b>17,328</b>	<b>54,599</b>
Existing Dwellings <sup>4</sup>	11,894	799	12,693	7,460	10,272	16,487	46,912
Unbuilt Planned Dwellings <sup>5</sup>	2,094	190	2,284	1,480	1,652	535	5,951
Total Existing and Unbuilt Planned Dwellings	13,988	989	14,977	8,940	11,924	17,022	52,863
<b>Potential Additional Dwellings<sup>6</sup></b>			<b>393</b>	<b>102</b>	<b>935</b>	<b>306</b>	<b>1,736</b>

Amendments to the General Plan residential land use designations (to increase allowed densities to allow for approximately 2,600 units) will be necessary to implement the adopted 2021 Housing Element; those amendments are anticipated to result in a total number of existing and planned dwellings that exceeds the Proposition E dwelling caps. As discussed in City Council Resolution No. 2021-074, to comply with the city’s Regional Housing Needs Allocation, the city is required by state law to plan for residential units in excess of the Proposition E residential dwelling limits. The dwelling unit potential for these parcels will continue to be tracked to monitor status of the Proposition E dwelling unit limits.

## POPULATION

### Existing Population

The performance standards for city administrative facilities, library facilities, and parks are stated in terms of population. The demand for these facilities is based on each new dwelling unit built and the estimated number of new residents it adds to the city, which is determined using the average number of persons per dwelling unit. Utilizing data from the 2020 Federal Census (total population divided by total number of dwelling units), the average for Carlsbad is 2.404 persons per dwelling unit.

As of June 30, 2022, the city’s population is estimated to be 117,800, which is calculated by multiplying 2.404 persons per dwelling unit by the number of dwelling units, accessory dwelling units, and commercial living units (which were counted as dwelling units in the 2020 Federal Census); in total there are 48,687 dwellings and commercial living units, as shown in Table 4 below. The population estimates are for growth management facility planning purposes only and may vary from population estimates for Carlsbad from other agencies, which may use a different method to estimate population.

<sup>4</sup> Existing dwellings represent dwelling units that are counted for purposes of the city’s growth management dwelling unit limits per Proposition E and exclude accessory dwelling units and commercial living units.

<sup>5</sup> All quadrants except the Village - includes unbuilt approved projects, as well as vacant and underdeveloped property designated for residential use by the General Plan.

<sup>6</sup> Dwelling unit capacity in addition to what is currently planned by the General Plan or approved as part of an unbuilt project.

Table 4: FY 2021-22 Population

Quadrant	Dwelling units <sup>7</sup>	Accessory dwelling units <sup>8</sup>	Commercial living units <sup>9</sup>	Total units	Population
NW	12,715	278	226	13,219	31,778
NE	7,460	51	270	7,781	19,355
SW	10,272	49	685	11,006	26,483
SE	16,487	194	-	16,681	40,183
<b>Total</b>	<b>46,934</b>	<b>572</b>	<b>1,181</b>	<b>48,687</b>	<b>117,800</b>

Buildout Population

Table 5 estimates the number of dwellings that will exist at buildout based on current General Plan residential land use designations; this estimate assumes that the residentially designated land currently developed with non-residential uses will not all be developed with residential uses in the future.

Table 5: Estimated Dwelling Units And Population At Buildout

Quadrant	Dwelling Units	Population
NW	15,209	39,126
NE	8,940	22,741
SW	11,215	29,098
SE	16,899	42,551
Total	52,263	133,515

The buildout population information here and in the following sections does not reflect future residential density increases that result from development projects and Housing Element programs. As required by the city’s 2021-2029 Regional Housing Needs Assessment obligations, the city must identify sites that can accommodate 3,873 new housing units by 2029. The city’s current inventory of residential sites can meet part, but not all of the housing sites required by the state. Housing Element Program 1.1 requires rezoning land to make up the shortfall, which will result in approximately 2,600 additional housing units and an additional 6,200 population. The rezoning effort will include an analysis of potential impacts on public facilities.

<sup>7</sup> Dwelling units represent the dwellings that are counted for purposes of the city’s growth management dwelling unit limits per Proposition E (excludes accessory dwelling units and commercial living units); the number of dwelling units shown in this table are updated to June 30, 2022.

<sup>8</sup> Accessory dwelling units are accessory to single family dwellings and are separate dwelling units with living space, kitchen and bathroom facilities. Pursuant to state law, accessory dwelling units cannot be counted as dwellings for purposes of the city’s growth management dwelling limits. However, the units are counted here to ensure all city population is considered in regard to the performance standards for administrative facilities, libraries and parks.

<sup>9</sup> Commercial living units, as shown in this table, are professional care facility living units that were counted as dwelling units in the 2020 Federal Census. Pursuant to city ordinance (CMC Section 21.04.093), commercial living units are not counted as dwellings for purposes of the city’s growth management dwelling limits. However, the units are counted here to ensure all city population is considered in regard to the performance standards for administrative facilities, libraries and parks.

## DEVELOPMENT ACTIVITY

### Residential Development Activity

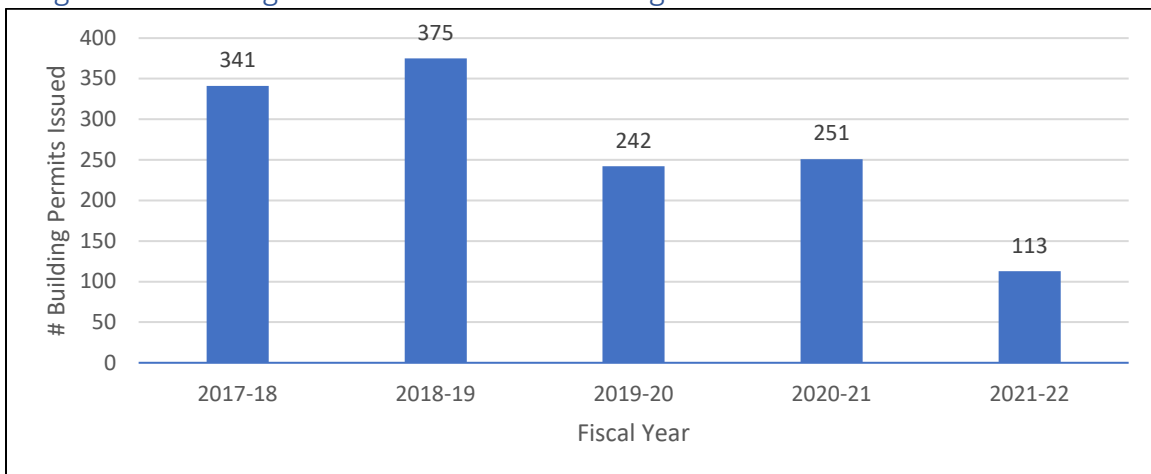
During FY 2021-22, building permits were issued for 113 new dwelling units (42 primary dwellings and 71 accessory dwellings). Table 6 provides a breakdown by quadrant and Local Facility Management Zone, excluding the zones that had no development activity.

Table 6: FY 2021-22 Building Permits Issued – Dwelling Units

Quadrant	Local Facility Management Zone	Primary Dwellings	Accessory Dwellings
NW	1	29	35
	3	3	3
	4	1	1
	8	0	1
<b>Total NW</b>		<b>33</b>	<b>40</b>
NE	2	0	5
<b>Total NE</b>		<b>0</b>	<b>5</b>
SW	4	0	1
	6	0	1
	19	0	3
	20	0	1
	21	8	1
	22	1	0
<b>Total SW</b>		<b>9</b>	<b>7</b>
SE	6	0	14
	11	0	3
	12	0	2
<b>Total SE</b>		<b>0</b>	<b>19</b>
<b>Total Citywide</b>		<b>42</b>	<b>71</b>

Figure 2 shows the recent five-year trend of building permits issued for dwelling units and shows that the number of permits issued in FY 2021-22 were 52 to 70 percent less than the permits issued in the previous five years.

Figure 2 –Building Permits Issued for Dwelling Units



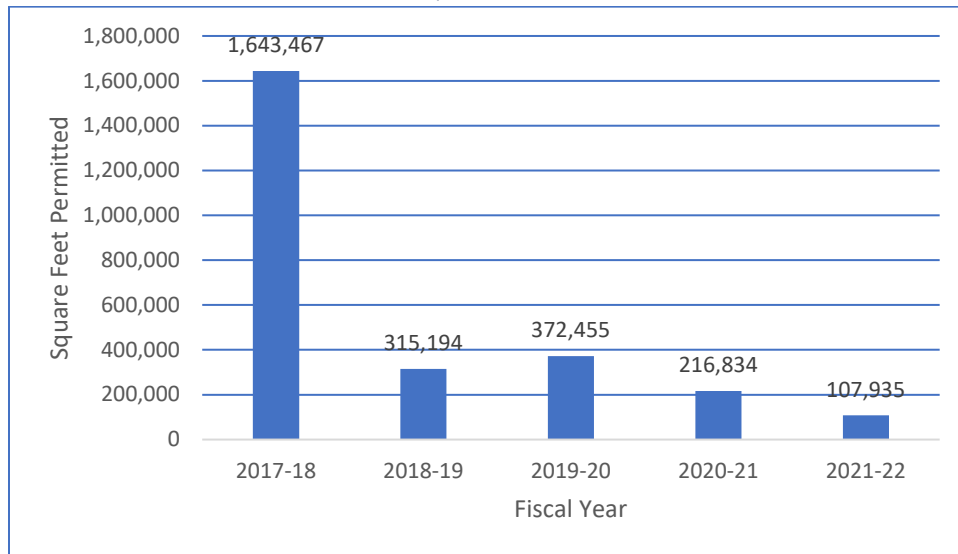
Non-Residential Development Activity

Building permits for 107,935 square feet of new commercial construction were issued during FY 2021-22; no permits were issued for new industrial development. Table 7 provides a breakdown by quadrant and Local Facility Management Zone, excluding the zones that had no development activity. Figure 3 shows the recent five-year trend of building permits issued for the square footage of non-residential construction. The amount of non-residential square feet permitted in FY 2021-22 was 93.5% less than FY 2017-18 and 50 to 71% less than FY 2018-19 to FY 2020-21.

Table 7 – FY 2021-22 Non-Residential Development

Quadrant	Local Facility Management Zone	Commercial (SF)	Industrial (SF)	Combined (SF)
NW	3	97,842	-	97,842
Total NW		97,842	-	97,842
SE	6	10,093		10,093
Total SE		10,093	-	10,093
<b>Total Citywide</b>		<b>107,935</b>		<b>107,935</b>

FIGURE 3 – NON-RESIDENTIAL SQUARE FEET PERMITTED



## CITY ADMINISTRATIVE FACILITIES

### Performance Standard

1,500 sq. ft. per 1,000 population must be scheduled for construction within a five-year period or prior to construction of 6,250 dwelling units, beginning at the time the need is first identified.

### FY 2021-22 Facility Adequacy Analysis

Based on the estimated June 30, 2022, population estimate of 117,800, the current demand for administrative facilities is **176,700** square feet. To date, city administrative facilities exceed the performance standard. The existing inventory of City of Carlsbad and Carlsbad Municipal Water District buildings (leased and owned) occupied for administrative services are included in Table 8:

Table 8: Existing Administrative Facilities

Facility	Address	Square Feet
City Hall Complex	1200 Carlsbad Village Drive	16,000
Faraday Administration Building	1635 Faraday Ave.	68,000
Fleet Service Center	2480 Impala Drive	10,540
Water District (Maintenance & Operations)	5950 El Camino Real	18,212
Parks Yard (Maintenance & Operations)	1166 Carlsbad Village Drive	4,012
Public Works Operations	405 Oak Ave.	9,950
Safety Center (Police and Fire administration)	2560 Orion Way	55,027
First Responder Safety Training Center	5750 Orion Way	15,090
Senior Center (Parks & Recreation administration)	799 Pine Ave.	5,770
Harding Community Center (Parks & Recreation administration)	3096 Harding St.	1,335
<b>Total Existing Square Feet of Administrative Facilities</b>		<b>203,936</b>
<b>Square Feet Required by Performance Standard</b>		<b>176,700</b>
<b>Square Feet that Exceeds Standard</b>		<b>27,236</b>

### Buildout Facility Adequacy Analysis

Based on the current General Plan residential land use designations, the projected buildout population is 133,515, the demand for city administrative facilities will be **200,273** square feet. The existing **203,936** square feet of administrative facilities exceeds the growth management performance standard at buildout.

#### *New Orion Center Project*

A development proposal is underway for the Orion Center project, which will centralize the city's maintenance and operations functions into a single location on Orion Way. The goal for the facility is to accommodate the existing and future needs for Public Works (Utilities/Carlsbad Municipal Water District, General Services and Construction Management & Inspection) and Parks & Recreation (Parks



Maintenance). The proposed project will make three existing city facilities available for redevelopment: 5950 El Camino Real, 405 Oak Street, and 1166 Carlsbad Village Drive. The Orion Center project will provide 85,320 square feet of administrative space (among other uses), which will be a net increase of 53,146 square feet over the three existing sites. The environmental document for the Orion Center has completed public review and the decision for the Conditional Use Permit is scheduled for the Planning Commission in Spring 2023.

#### *New City Hall Project*

On Aug. 16, 2022, the City Council received an update on a new City Hall and directed staff to pursue a new approximately 40,000 square foot City Hall to be built on the site of the current City Hall Complex (16,500 square feet), which is an increase of approximately 23,500 square feet. The new 40,000 square foot facility will include administrative facilities for existing City Hall Complex staff, as well as potentially house Library & Cultural Arts staff and Parks & Recreation staff. The Faraday Administration Building will continue to house Community Development, Finance, Human Resources and other departments occupying the facility at this time. Additionally, the New City Hall Project may include the planning efforts for a new Cole Library facility, see “Library Facilities” in the next section.

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## LIBRARY FACILITIES

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### Performance Standard

800 sq. ft. (of library space) per 1,000 population must be scheduled for construction within a five-year period or prior to construction of 6,250 dwelling units, beginning at the time the need is first identified.

Note: library space (leased/owned, public/non-public) is used as a standard library measurement of customer use and satisfaction and includes collection space, seating, meeting rooms, staff areas, technology, and other public facility needs. The performance standard was originally developed based on surveys of other libraries of comparable size and based on related standards (such as volumes per capita) set by the American Library Association.

### FY 2021-22 Inventory and Adequacy of Facilities

The current inventory of library facilities (city-owned) is shown in Table 9:

Table 9: Existing Library Facilities

Facility	Square Feet
Dove Library	64,000
Cole Library	24,600
Learning Center	11,393
<b>Total Existing Library Square Feet</b>	<b>99,993</b>
<b>Square Feet Required by Performance Standard</b>	<b>94,240</b>
<b>Square Feet that Exceed Standard</b>	<b>7,753</b>

Based on the June 30, 2022, population estimate of 117,800, the growth management standard requires **94,240** square feet of public library space. The city's current 99,993 square feet of library facilities adequately meets the growth management standard.

### Facility Adequacy at Buildout

Based on the current General Plan residential land use designations, the projected buildout population is 133,515, the demand for library facilities will be **106,812** square feet. The existing **99,993** square feet of library facilities is expected to fall short of the growth management standard at buildout.

In 2015-16, the city completed major maintenance and renovation for both the Cole and Dove facilities that addresses current Americans with Disabilities Act requirements and allows delivery of modern library services and technology, while extending the life of the Cole Library by 10 to 15 years.

Built in 1967, the design of the Cole Library could not have contemplated modern library services including the extensive delivery of electronic resources, automated materials handling, and the variety of new media formats. Additionally, the library's role as a community gathering space has evolved. With an already maximized building footprint and infrastructure constraints, the Cole Library will not expand further to meet these changing needs. Additional meeting spaces, technology learning labs and maker spaces are examples of elements desired by the community.

Complete replacement of the Cole facility is included in the Capital Improvement Program budget between the years 2023 and buildout, as part of the new City Hall project (see "Administrative Facilities" in the preceding section). The City Hall project will most likely inform the timing, impact and opportunities for a new Cole library facility.

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## WASTEWATER TREATMENT CAPACITY

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### Performance Standard

Sewer plant capacity is adequate for at least a five-year period.

### FY 2021-22 Facility Adequacy Analysis

The Encina Water Pollution Control Facility currently provides adequate capacity in excess of the performance standard. Carlsbad's FY 2021-22 annual daily average dry weather sewer flow was 5.72 million gallons per day (MGD) representing 56% of the city's 10.26 MGD capacity rights. The city's annual daily average sewage flow to the Encina Water Pollution Control Facility for the previous five years is shown in Table 10:

Table 10: Five-Year Annual Daily Average Sewage Flow

Fiscal Year	Annual daily average flow
FY 2017-18	6.18 MGD
FY 2018-19	6.03 MGD
FY 2019-20	6.31 MGD
FY 2020-21	6.31 MGD
FY 2021-22	5.72 MGD

### Buildout Facility Adequacy Analysis

The Encina Water Pollution Control Facility Phase V Expansion provides adequate sewer treatment capacity to ensure compliance with the growth management wastewater performance standard through buildout of the Carlsbad sewer service area.

The City of Carlsbad 2019 Sewer Master Plan Update contains an analysis of annual daily average sewer flow through buildout (2040) of the city based on the Carlsbad General Plan land use projections. The analysis indicates that the city's projected ultimate buildout flow is approximately 8.31 MGD. The city has purchased capacity rights to 10.26 MGD in the Encina Water Pollution Control Facility, which ensures adequate wastewater treatment capacity is available to accommodate an unanticipated increase in future sewer flows.

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## PARKS

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### Performance Standard

3.0 acres of Community Park or Special Use Area per 1,000 population within the Park District<sup>1</sup> must be scheduled for construction<sup>2</sup> within a five-year period beginning at the time the need is first identified<sup>3</sup>. The five-year period shall not commence prior to August 22, 2017.

### FY 2021-22 Facility Adequacy Analysis

As shown in Table 11, all quadrants were in compliance with the park standard during FY 2021-22.

Table 11: Existing Park Inventory and Required Park Acreage

Quadrant	Park acreage inventory existing	Park acreage required by Performance Standard
NW	108.3	95.3
NE	45.3	58.0
SW	70.2	79.4
SE	114.9	120.5
<b>Total</b>	<b>338.7</b>	<b>353.2</b>

The performance standard requirement for park acreage exceeds the inventory of existing and scheduled park acreage for the NE, SW and SE quadrants. Although short of the acreage required, these quadrants were not out of compliance with the performance standard because the five-year period had not been reached. For the SW and SE quadrants, the five-year period began on August 22, 2017, as required by City Council Resolution No. 2017-170. For the NE quadrant, the FY 2017-18 Growth Management Monitoring Report identified the park acreage deficit due to increases in population, so the five-year period began on June 30, 2018.

### Buildout Facility Adequacy Analysis

Based on the FY 2021-22 Capital Improvement Program list of projects, Veterans Memorial Park is proposed to be constructed prior to buildout. The scheduling of construction of this community park results in the projected park inventory for all city quadrants exceeding the projected required acreage at buildout, as shown in Table 12:

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<sup>1</sup> "Park District" = "quadrant". There are four park districts within the city, corresponding to the four quadrants.

<sup>2</sup> "Scheduled for construction" means that the improvements have been designed, a site has been selected, and a financing plan for construction of the facility has been approved (See Resolution 2017-170.) An identical definition was adopted in the Citywide Facilities and Improvements Plan in September 1986 (pages 14 and 32).

<sup>3</sup> The threshold for triggering the construction of a new park is as follows: Once a deficit of park acreage in a quadrant is identified, a new park must be scheduled for construction within the time frame of five years.

Table 12: Projected Park Inventory at Buildout

Quadrant	Buildout Population <sup>1</sup>	Buildout Required Acreage	Current Inventory	Projected Inventory
NW	39,126	117.4	108.3	131.7
NE	22,741	68.2	45.3	68.7
SW	29,098	87.3	70.2	93.6
SE	42,551	127.6	114.9	138.3
<b>Total</b>	<b>133,515</b>	<b>400.5</b>	<b>338.7</b>	<b>432.4</b>

### Veterans Memorial Park

On July 26, 2022 (outside the reporting period of this report), the City Council approved the Veterans Memorial Park Master Plan, and the park is funded<sup>2</sup>; therefore, the park is “scheduled for construction.” Veterans Memorial Park addresses the referenced deficits in the NE, SW and SE quadrants (Table 11).

Veterans Memorial Park is a 93.7-acre park located approximately 350 feet east of Cannon Road and Faraday Avenue. Because of its size, centralized location, and citywide significance, the park will help fulfill citywide park facility needs. The city’s intention for the park to be a citywide park facility, and for the total park acreage to be applied equally to all city quadrants dates to the the Citywide Facilities and Improvements Plan (CFIP) approved in 1986 (See Resolution 8797, adopted September 23, 1986, Exhibit A at pp. 33–35 [allocating 25 acres from the Macario Canyon park to each quadrant].). The “projected inventory” in Table 12 includes 23.425 acres in each quadrant for Veterans Memorial Park. Additionally, the following documents reaffirmed the distribution of Veterans Memorial Park for citywide benefit:

- Community Facilities District No. 1 (CFD), established in 1991, finances public facilities of citywide benefit, including Veterans Memorial Park.
- 2015 General Plan Open Space, Conservation and Recreation Element credits equal acreage from Veterans Memorial Park to each quadrants future park inventory.

### Additional Parks Acreage

The proposed park acreage numbers in Table 12 do not include park projects listed in the CIP as “partially funded” or “unfunded”. Should alternative funding mechanisms be found, and these parks are built, the additional parks acreage would further aid in meeting/exceeding the growth management parks performance standard.

- Partially funded – In the FY 2021-22 CIP, \$12,592,000 has been transferred to the Robertson Ranch Park project (NE – 11.2 acres), which changes its status to “partially funded”. An additional \$85,000 was appropriated in FY 2021-22 as an inflationary measure. The master planning process for this park is scheduled to begin in FY 2022-23.
- Unfunded – Zone 5 Business Park Recreational Facility (NW – 9.3 acres) and Cannon Lake Park (NW – 6.8 acres).

<sup>1</sup> Reflects the General Plan

<sup>2</sup> The City Council has appropriated \$1,837,200 for the Veterans Memorial Park Project, in Capital Improvement Program Project No. 4609. That funding is sufficient to cover the three phases of the project after master planning, which includes design development, construction documents and public bidding. Additionally, \$22,085,000 is budgeted for the project in fiscal year 2025-26.

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## DRAINAGE

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### Performance Standard

Drainage facilities must be provided as required by the city concurrent with development.

### FY 2021-22 Facility Adequacy Analysis

All areas of the city currently meet the growth management drainage performance standard – required drainage facilities have been provided concurrent with development.

Drainage facility needs are best assessed as specific development plans for individual projects are finalized. Therefore, the drainage performance standard was written to allow the city to require appropriate drainage facilities as development plans are finalized and approved.

The construction of drainage facilities related development projects is addressed during the review of individual project proposals. Maintenance, repair, and replacement drainage projects are identified on an ongoing basis and are incorporated in the Capital Improvement Program as a part of the Storm Drain Condition Assessment Program, the Citywide Storm Drain Rehabilitation and Replacement Program, or as individual/stand-alone projects.

Master planned drainage facilities are identified in the city's 2008 Drainage Master Plan. The associated Planned Local Drainage Area fee program finances the construction of these facilities. The goal of the Drainage Master Plan is to assess the performance of existing drainage infrastructure, identify anticipated improvements and identify a funding mechanism to ensure construction of the planned facilities. The Drainage Master Plan is updated periodically to reflect changes in the general plan, city growth, construction costs, drainage standards and environmental regulations. At the present, the Public Works Department is updating the 2008 Drainage Master Plan to ensure these larger/master planned facilities will be adequately funded.

### Buildout Facility Adequacy Analysis

The 2008 Drainage Master Plan proposes the construction of new facilities to reduce the flooding risk from potential storm events. Construction of the proposed drainage facilities will provide the backbone system to maintain the drainage performance standard through buildout of the city. The current update to the Drainage Master Plan will address funding availability for the construction of needed flood control facilities. The estimated costs for these facilities and the programming of Planned Local Drainage Area funds are included in the annual Capital Improvement Program.

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## CIRCULATION

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The information on the status of the Circulation performance standard is provided in part by this report (status of the vehicle travel mode). The status of the pedestrian, bicycle and transit travel modes will be reported separately after review by the Traffic & Mobility Commission.

### Performance Standard

Implement a comprehensive livable streets network that serves all users of the system – vehicles, pedestrians, bicycles and public transit. Maintain level of service (LOS) D or better for all modes that are subject to this multi-modal level of service (MMLOS) standard, as identified in Table 3-1 of the General Plan Mobility Element, excluding LOS exempt intersections and streets approved by the City Council.

Note: The service levels for each travel mode are represented as a letter “grade” ranging from LOS A to LOS F: LOS A reflects a high level of service for a travel mode (e.g., outstanding characteristics and experience for that mode) and LOS F would reflect an inadequate level of service for a travel mode (e.g., excessive congestion for vehicles or inadequate facilities for bicycle, pedestrian or transit users).

The performance standard for the circulation system is guided by the General Plan Mobility Element as follows:

*Implementing Policy 3-P.3: Apply and update the city’s multi-modal level of service (MMLOS) methodology and guidelines that reflect the core values of the Carlsbad Community Vision related to transportation and connectivity. Utilize the MMLOS methodology to evaluate impacts of individual development projects and amendments to the General Plan on the city’s transportation system.*

*Implementing Policy 3-P.4: Implement the city’s MMLOS methodology and maintain LOS D or better for each mode of travel for which the MMLOS standard is applicable, as identified in Table 3-1 and Figure 3-1<sup>1</sup>.*

### Livable Streets

The monitoring program for the circulation system is guided by General Plan Mobility Element Goal 3-G.1:

*Keep Carlsbad moving with livable streets that provide a safe, balanced, cost-effective, multi-modal transportation system (vehicles, pedestrians, bikes, transit), accommodating the mobility needs of all community members, including children, the elderly and the disabled.*

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<sup>1</sup> Table 3-1 and Figure 3-1 are found in the General Plan Mobility Element and are summarized in Table 13 of this report.

The California Complete Streets Act requires cities in California to plan for a balanced, multi-modal transportation system that meets the needs of all travel modes. Accomplishing this state mandate requires a fundamental shift in how the city plans and designs the street system – recognizing the street as a public space that serves all users of the system (elderly, children, bicyclists, pedestrians, etc.) within the urban context of that system (e.g., account for the adjacent land uses).

- Prior to adoption of the General Plan Mobility Element on Sept. 22, 2015, the growth management circulation performance standard was based on the circulation needs of a single mode of travel – the automobile.
- The General Plan Mobility Element identifies a new livable streets strategy for mobility within the city.
- The livable streets strategy focuses on creating a ‘multi-modal’ street network that supports the mobility needs of pedestrians, bicyclists, transit users and vehicles.
- Providing travel mode options that reduce dependence on the vehicle also supports the city’s Climate Action Plan in achieving its goals of reducing greenhouse gas emissions within the city.

### Street Typology

The city’s approach to provide livable streets recognizes that improving the LOS for one mode of transportation can sometimes degrade the LOS for another mode. For example, pedestrian-friendly streets are designed to encourage pedestrian uses and typically have amenities that slow vehicle travel speeds (e.g., short-distance pedestrian crossings that restrict vehicle mobility). The “street typology” is defined in the General Plan Mobility Element and determines which travel modes are subject to the MMLOS D standard, as summarized in Table 13. For example, the vehicular mode of travel is subject to the MMLOS D standard on the following street typologies: freeways, arterial streets, arterial connector streets and Industrial streets.

Table 13: Street Typology and MMLOS Standard				
STREET TYPOLOGY	Modes subject to the MMLOS D Standard			
	Vehicular	Transit	Pedestrian	Bicycle
Freeways	Yes	Yes	No	No
Arterial Streets	Yes	Yes	No	No
Identity Streets	No	No	Yes	Yes
Village Streets	No	No	Yes	Yes
Arterial Connector Streets	Yes	No	Yes	Yes
Neighborhood Connector Streets	No	No	Yes	Yes
Coastal Streets	No	No	Yes	Yes
School Streets	No	No	Yes	Yes
Employment/Transit Connector Streets	No	Yes	Yes	Yes
Industrial Streets	Yes	Yes	No	No
Local/Neighborhood Streets	No	No	Yes	Yes
All Streets Located Within Half-Mile of a Transit Center	No	Yes	Yes	Yes
Bicycle/Pedestrian Pathways	No	No	Yes	Yes



## Methods to Measure Service to Different Transportation Modes

### How vehicular LOS is measured

The city monitors facilities that are subject to the vehicular LOS standard according to that street's typology as defined in Table 13. This section of the report summarizes the vehicular LOS methodology used for monitoring purposes. For the fiscal year (FY) 2021-22 monitoring report all the street facilities required to meet the vehicular LOS standard were monitored including the arterial, arterial connector, and industrial street typologies.

The city evaluates the roadway network at the "facility" level according to Chapter 16 of the Highway Capacity Manual. A facility is defined as one direction of travel along a length of road that has similar travel and geometric characteristics, and it typically extends between multiple signalized intersections. Each facility has an associated capacity that is defined in the Highway Capacity Manual as "the ability of a transportation facility or service to meet the quantity of travel demanded of it." For Growth Management Plan monitoring purposes, travel demand on a roadway is measured by the volume of vehicles using the facility during the peak hours of operation. A volume threshold is established for each LOS grade according to the Highway Capacity Manual. The vehicular LOS is determined by comparing the traffic volume against these thresholds. For example, a LOS D is recorded when a traffic volume exceeds the LOS C threshold but is below the LOS D threshold.

A street "facility" is comprised of smaller and contiguous "segments" that typically extend between two adjacent signalized intersections. Per the Highway Capacity Manual, an entire facility is reported as failing if the volume along any one of its segments exceeds its capacity, which defines LOS F. When a facility has been monitored and found to operate at LOS D, each segment of that facility will be evaluated the following monitoring cycle and the LOS will be reported as follows:

- a. If the volume of any one segment of the facility exceeds the reported capacity for that segment, the facility will be reported as LOS F; or
- b. If none of the segment volumes exceeds its reported capacity for that segment, the facility will be reported as LOS D (or the new level if it has changed).

As noted above, travel demand is assumed to equal the traffic volume measured during the peak hour of operation. Vehicular LOS is determined based on one mid-block traffic count collected for each facility (or segment) being evaluated. The data is collected while school is in session in either the spring or fall. The morning and afternoon (a.m./p.m.) peak hours' LOS is reported for each facility or segment. Each street evaluated will have separate LOS results reported for the a.m. and p.m. peak hour conditions with independent grades reported for each direction of travel. This approach to data collection is consistent with industry standards.

### How Pedestrian, Bicycle and Transit Service MMLOS is measured

The General Plan Mobility Element calls for the use of a MMLOS methodology to provide a metric for evaluating bicycle, pedestrian and transit modes of travel. In 2015, a method for evaluating bicycle and pedestrian LOS was first developed as part of the General Plan Environmental Impact Report (EIR); this EIR method was applied on a broad, program level to evaluate service to pedestrian, bicycle and transit users. When consultants applied the original method during the preparation of impact studies of proposed development projects, limitations were discovered in terms of the study area, directional travel and potential inconsistent interpretations of how the method should be applied.

Accordingly, a more robust method was developed in 2018 to calculate MMLOS for each mode and to identify a broader range of improvements that could be implemented to ensure the minimum operating standard would be met. As noted in General Plan Mobility Element Policy 3-P.3, the purpose of the MMLOS methodology is to provide a means for evaluating impacts of individual development projects, as well as monitoring the LOS for individual streets to ensure that they are meeting the specified standard by street type. Ultimately the MMLOS methodology was revised to accomplish these goals and a spreadsheet-based MMLOS Tool was developed to calculate points for a specified location.

The MMLOS Tool generates a letter grade (A through F) to reflect the quality of service provided to a user of that mode of travel. This grade is based on the applicable attributes of the associated pedestrian, bicycle or transit mode. Examples of the attributes used to develop the MMLOS grade for bicycle travel include pavement condition, posted speed limit, on-street parking and buffered bike lanes. Each attribute contributes to a point system that corresponds to a MMLOS letter grade, when the total points for all attributes are added together. A LOS D score indicates that the existing attributes provide the minimum acceptable service for that mode. The MMLOS grades are determined using field data related to each attribute used in the scoring criteria.

In FY 2021-22, bicycle, pedestrian, and transit travel modes were evaluated as part of this year's monitoring report but will be presented separately to allow the Traffic & Mobility Commission to review the proposed update to the MMLOS methodology and the MMLOS results based on the update.

#### Exemptions to the LOS D Standard

General Plan Mobility Element Policy 3-P.9 requires the city to develop and maintain a list of street facilities where specified modes of travel are exempt from the LOS standard (LOS-exempt street facilities), as approved by the City Council.

Regarding vehicular LOS standards, the City Council has the authority to exempt a street facility from the vehicular LOS standard if the street facility meets one or more of the following criteria from General Plan Mobility Element Policy 3-P.9:

- a) Acquiring the rights of way is not feasible; or
- b) The proposed improvements would significantly impact the environment in an unacceptable way and mitigation would not contribute to the nine core values of the Carlsbad Community Vision; or
- c) The proposed improvements would result in unacceptable impacts to other community values or General Plan policies; or
- d) The proposed improvements would require more than three through travel lanes in each direction.

General Plan Mobility Element Policy 3-P.11 requires new development that adds vehicular traffic to street facilities that are exempt from the vehicle LOS D standard to implement:

- Transportation Demand Management (TDM) strategies that reduce the reliance on single-occupant automobiles and assist in achieving the city's livable streets vision; and
- Transportation System Management (TSM) strategies that improve traffic signal coordination and improve transit service.

Each of the previously exempt street facilities were monitored this cycle and evaluated against the vehicular LOS standard. The results of this evaluation are summarized in Table 14 below. No changes have occurred since the adoption of these resolutions that would warrant lifting exemptions for these street facilities.

Table 14: Vehicle LOS Exempt Street Facilities					Date of Exemption
Street Facility	From	To	LOS (AM/PM)	Meets LOS Standard?	
1. La Costa Avenue	Interstate-5	El Camino Real	B/C	Yes	Exempted with Adoption of the General Plan Mobility Element on Sept. 22, 2015
2. La Costa Avenue	El Camino Real	Interstate-5	F/B	No	
3. El Camino Real	Palomar Airport Road	Camino Vida Roble	C/C	Yes	
4. El Camino Real	Camino Vida Roble	Poinsettia Lane	B/C	Yes	
5. El Camino Real	Poinsettia Lane	Aviara Parkway/Alga Road	C/C	Yes	
6. El Camino Real	Aviara Parkway/Alga Road	La Costa Avenue	F/C	No	
7. El Camino Real	La Costa Avenue	Aviara Parkway/Alga Road	C/C	Yes	
8. El Camino Real	Aviara Parkway/Alga Road	Poinsettia Lane	C/C	Yes	
9. El Camino Real	Poinsettia Lane	Camino Vida Roble	C/C	Yes	
10. El Camino Real	Camino Vida Roble	Palomar Airport Road	C/D	Yes	
11. Palomar Airport Road	Avenida Encinas	Paseo del Norte	F/F	No	
12. Palomar Airport Road	Paseo del Norte	Armada Drive	D/C	Yes	
13. Palomar Airport Road	Armada Drive	College Boulevard/Aviara Parkway	C/C	Yes	
14. Palomar Airport Road	College Boulevard/Aviara Parkway	Armada Drive	C/C	Yes	
15. Palomar Airport Road	Armada Drive	Paseo del Norte	C/C	Yes	
16. Palomar Airport Road	Paseo del Norte	Avenida Encinas	F/F	No	
17. Palomar Airport Road	El Camino Real	El Fuerte Street	B/C	Yes	
18. Palomar Airport Road	El Fuerte Street	Melrose Drive	B/F	No	
19. Palomar Airport Road	Melrose Drive	El Fuerte Street	C/C	Yes	
20. Palomar Airport Road	El Fuerte Street	El Camino Real	C/C	Yes	
21. El Camino Real	Oceanside city limits	Marron Road	F/F	No	Dec. 17, 2019
22. El Camino Real	Marron Road	Oceanside city limits	E/F	No	
23. Melrose Drive	Vista city limits	Palomar Airport Road	E/E	No	
24. El Camino Real	Cannon Road	College Boulevard	B/B	Yes	Jun. 9, 2020
25. El Camino Real	College Boulevard	Cannon Road	B/F	No	
26. Cannon Road	El Camino Real	College Boulevard	D/E	No	
27. Cannon Road	College Boulevard	El Camino Real	E/D	No	
28. El Camino Real	Tamarack Avenue	Cannon Road	C/C	Yes	Nov. 3, 2020
29. College Boulevard	Carlsbad Village Drive	Oceanside City Limits	C/D	Yes	Jan. 12, 2021*
30. Cannon Road	Avenida Encinas	Paseo del Norte	E/E	No	
31. Cannon Road	Paseo del Norte	Avenida Encinas	E/F	No	
32. Aviara Parkway/Alga Road	Manzanita Street	El Camino Real	F/F	No	July 12, 2022
33. Aviara Parkway/Alga Road	El Camino Real	Manzanita Street	F/F	No	

\*On January 12, 2021, City Council also exempted the remaining facility of Palomar Airport Road between Avenida Encinas to Paseo del Norte.

## FY 2021-22 Facility Adequacy Analysis

The following vehicular LOS and MMLOS results are based on the data reported in the *City of Carlsbad Roadway Level of Service Analysis Report (January 2023)*.

### 1. Vehicular LOS

The vehicular LOS grades reflect traffic data gathered in September, October, and November of 2022. The traffic data represents typical weekday traffic conditions. Counts were collected at each midblock location for three consecutive weekdays. For each roadway segment, the highest one-hour AM and one-hour PM volume of the three days were determined for each direction of travel.

Overall, it is noted that 2022 traffic volumes appear to be normalizing to pre COVID-19 pandemic conditions.

The LOS results for the vehicular mode are illustrated in Figure 4. All the deficient roadway facilities identified above were previously determined by City Council to be deficient and exempt per General Plan Mobility Policy 3-P.10.

Table 15 lists the street facilities which were previously reported as LOS D in the FY 2020-21 monitoring report. The facilities were further studied at the segment level as part of the FY 2021-22 report to determine the operating LOS of the facility at the segment level. The results of this analysis show that all of these facilities will still meet the LOS D standard.

**Figure 4: Vehicular Level of Service (LOS) Results**

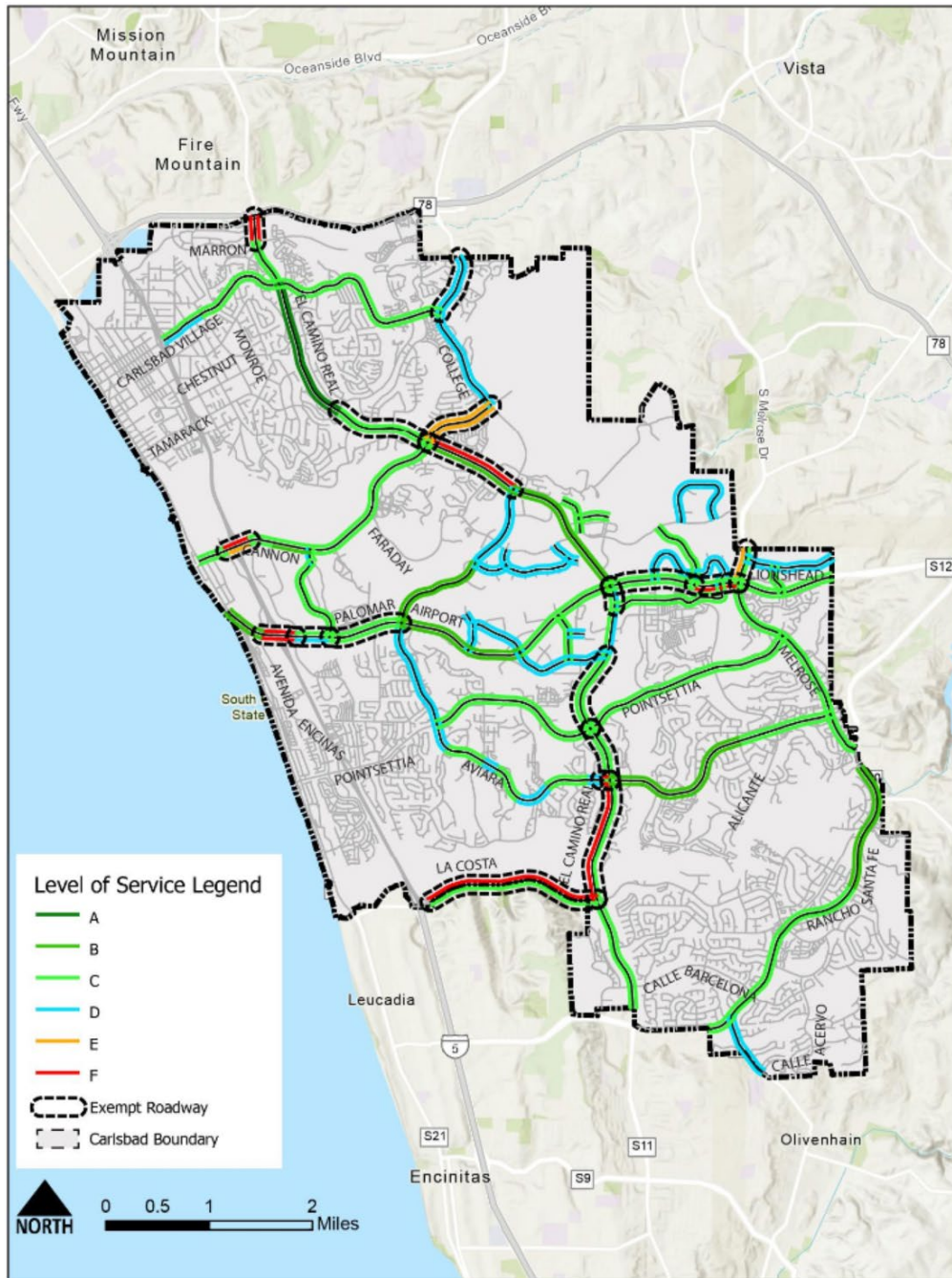


Table 15: Roadway Facilities that were LOS D in the Previous Reporting Year

Facilities studied at the segment level that were LOS D in previous reporting year.		2021						2022					
		AM			PM			AM			PM		
		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
El Camino Real	Palomar Airport Road	D	D	D	D	D	D	C	C	C	D	C	
	La Costa Avenue	D	D	D	D	D	D	C	C	C	C	C	
	City Limits	C	D	D	D	D	D	C	D	D	D	C	
College Boulevard	Carlsbad Village Drive	D	D	D	D	D	D	C	D	D	D	C	
	El Camino Real	D	D	D	D	D	D	C	D	D	D	C	
Aviara Parkway	Palomar Airport Road	D	D	D	D	D	D	D	D	D	D	D	
Rancho Santa Fe	Olivenhain Road	D	D	D	D	D	D	D	D	D	D	D	
Whiptail Loop W	Faraday Avenue	D	C	C	D	D	D	C	C	C	C	D	
Whiptail Loop E	Whiptail Loop W	D	D	D	D	D	D	D	D	D	C	D	
Cannon Road	Legoland Drive	C	D	C	C	C	C	C	C	C	C	C	
Palomar Airport Road	Paseo del Norte	D	C	C	C	D	D	D	D	C	C	C	
Carlsbad Village Drive	I-5	C	D	D	D	C	C	C	D	C	C	D	
Aviara Parkway/Alga Road	Poinsettia Lane	D	D	D	D	D	D	D	D	D	D	D	
	Black Rail Road	D	D	D	D	D	D	D	D	D	D	D	
	Kingfisher Lane	D	D	D	D	D	D	D	D	D	D	D	
	Batiquitos Drive/Baccharis Avenue	D	D	D	D	D	D	D	D	D	D	D	
	Mimosa Drive	D	D	D	D	D	D	D	D	D	D	D	
	Faraday Avenue	D	D	D	D	D	D	D	D	D	D	D	
Priestly Drive	Faraday Avenue	D	D	D	D	D	D	D	D	D	D	D	
Lionshead Avenue	Melrose Drive	D	D	D	D	D	D	D	D	D	D	D	
Camino Vida Roble	Palomar Oaks Way	D	D	D	D	D	D	D	D	D	D	D	
	Palomar Airport Road	D	D	D	D	D	D	D	D	D	D	D	
Corte De La Pina	Yarrow Drive	C	C	C	C	D	D	D	D	D	D	D	

Note: NB = Northbound | SB = Southbound | EB = Eastbound | WB = Westbound



## Buildout Facility Adequacy Analysis

The 2015 General Plan EIR evaluated how buildout of the land uses planned by the General Plan will impact the vehicle, pedestrian, bicycle and transit levels of service, and identified that additional circulation facilities may need to be constructed to meet the Growth Management Program performance standard at buildout. The following summary provides the results of that evaluation:

### Vehicular Level of Service at Buildout

- Additional future road segments (extensions of College Boulevard and Camino Junipero) needed to accommodate the city's future growth were identified as part of the General Plan update. The General Plan Mobility Element identifies these needed future road segments as "Planned City of Carlsbad Street Capacity Improvements."
- The General Plan also called out the need to implement the scheduled Interstate-5 North Coast Project and Interstate-5/Interstate-78 Interchange Improvement Project that are needed to accommodate future growth.
- The CIP funds projects that will upgrade the LOS including several roadway widenings along El Camino Real near College Boulevard (northbound), La Costa Avenue (southbound) and Cassia Road (northbound).
- The General Plan EIR identifies TDM and TSM as mitigation measures for roadway sections that have been determined to be LOS-exempt.

### Next Steps

Staff will continue to work with the Traffic & Mobility Commission to finalize the update and revise the pedestrian, bicycle and transit MMLOS methodologies and report the MMLOS results.

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## FIRE

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### Performance Standard

No more than 1,500 dwelling units outside of a five-minute response time.

### FY 2021-22 Facility Adequacy Analysis

The city's fire facilities comply with the performance standard. There are no more than 1,500 dwelling units outside of a five-minute response distance from any of the city's six fire stations.

The intent of the performance standard, as applied to fire facilities, is to establish the distribution of station locations, based upon response distances. At the time the performance standard was developed, scientific fire behavior information and recognized best practices supported the position that a response time of five minutes would result in effective fire incident intervention. The performance standard provides no other mechanism for the installation of additional fire stations. It states that up to 1,500 dwelling units could exist outside the five-minute reach of the closest fire station for an indeterminate length of time without violating the standard. The five-minute response distance measure was selected exclusively as a means of geographically positioning fire stations throughout the city. Therefore, the standard is applied as a means of measuring compliance with locating fire facilities, not the performance of the Fire Department in meeting service responsibilities.

To determine if the standard is met for FY 2021-22, the city refers to the response time analysis conducted for buildout of the number and location of dwellings planned by the General Plan, which is more dwellings than currently exist. See "buildout" section below, which concludes that the existing fire stations are adequate to meet the standard at buildout (i.e., adequate to serve more dwellings than currently exist).

### Buildout Facility Adequacy Analysis

At buildout, the established threshold of more than 1,500 units that exist outside of a five-minute response distance will not be exceeded for any of the fire stations.

To determine if fire facilities comply with the Fire performance standard at buildout, the city's Geographic Information System Department created a map based upon the following information and the results are shown in Table 16:

- Existing fire station locations
- Anticipated future development
- 2.5-mile road distance from each of the six fire stations (five-minute response time equates to road driving distance of 2.5 miles);
- All planned, major roadway arterials; and
- The number of dwelling units projected at buildout that will be located outside of the 2.5-mile road (5 minute) distance from each fire station.

Table 16: Number of Dwellings Outside Five Minute Response Time

Fire Station Number	Total number of dwelling units outside of five minutes
1,3 & 4 (aggregated)	1,227
2	902
5	392
6	1,185



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## OPEN SPACE

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### Performance Standard

Fifteen percent of the total land area in the zone [Local Facility Management Zone] exclusive of environmentally constrained non-developable land must be set aside for permanent open space and must be available concurrent with development.

Note: Pursuant to the Citywide Facilities and Improvements Plan (CFIP), the Open Space standard is applicable in Local Facilities Management Zones 11 – 15 and 17 – 25. The standard does not apply in Zones 1 – 10 and 16 16 because these zones were either fully built out or had previously approved master plans which would provide sufficient open space at full build out. For more information, see the “Background Summary” below.

### FY 2021-22 Facility Adequacy Analysis

To date, adequate open space has been provided concurrent with new development to comply with the performance standard. Local Facility Management Plans have been adopted for all Local Facility Management Zones where the standard applies (Zones 11 – 15 and 17 – 25). Each Local Facility Management Plan (LFMP) identifies how the open space standard will be met within the zone. Within the applicable zones, approved development projects have been, and future development projects will be required to be, consistent with the open space required for the applicable Local Facility Management Zone.

### Buildout Facility Adequacy Analysis

All Local Facilities Management Zones, except for Zone 22, have provided the required growth management open space as identified in the applicable Local Facility Management Plans, which address required open space through buildout of the zones. Future projects in Zone 22 must provide their proportionate share of required open space in compliance with the standard.

### Background Summary

The history of the open space standard helps to clarify its applicability today. It should be noted that the open space provided to meet the open space standard does not represent all the open space in Carlsbad. Open space to the meet standard is provided within the applicable Local Facility Management Zones and is in addition to constrained open space, such as protected habitat and slopes greater than 40 percent. The city utilizes other methods to protect all the open space resources and amenities throughout the city, including the Habitat Management Plan (protects the city’s natural open space preserve system), Growth Management Parks standard (parks are a source of recreational open space in the city), and the Trails Master Plan (trails are another source of recreational open space).

### Citizens Committee for the Review of the Land Use Element (1985)

In 1985, a citizen’s committee made recommendations to the City Council regarding changes to the city’s General Plan Land Use Element. The committee’s recommendations were used as the basis for developing the growth management facility standards. A standard for open space was not recommended, but the committee did identify that future open space would be provided by future master planned areas (15 percent of the master plan area), as required by the Zoning Ordinance at that time (and today).

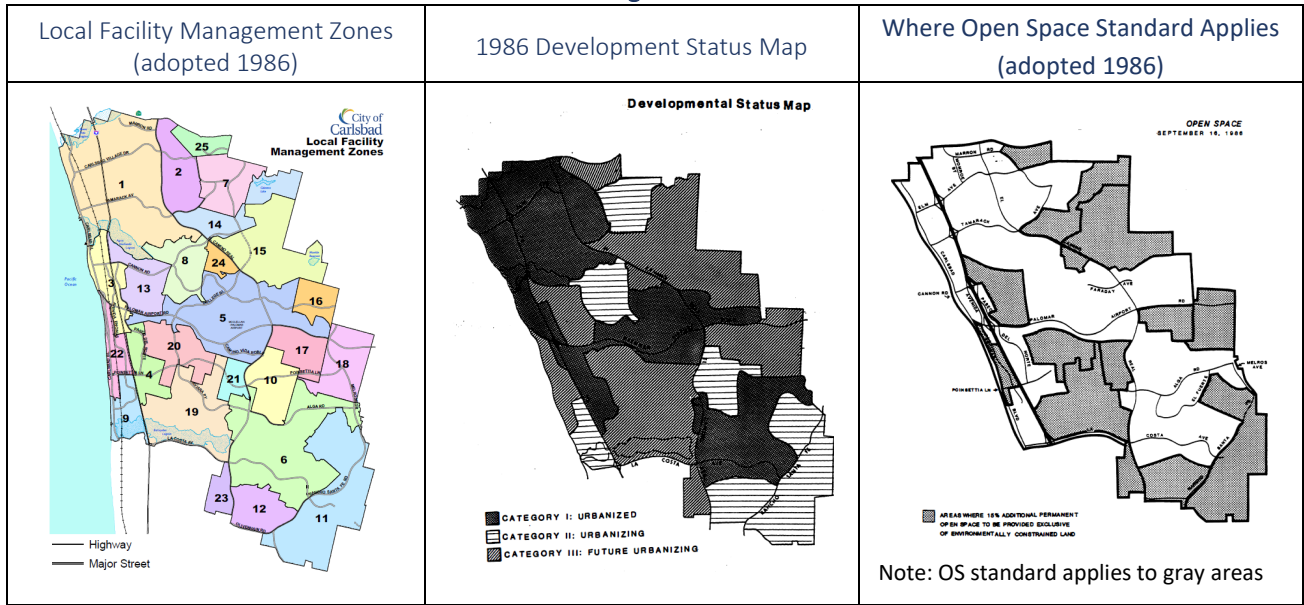
## Public Facility Standards (July 1986) and Citywide Facilities and Improvements Plan (Sept. 1986)

In 1986, the City Council adopted the Growth Management Ordinance (Carlsbad Municipal Code Chapter 21.90) and the public facility standards for the Growth Management Program. The Citywide Facilities and Improvements Plan specified that the open space standard applies in some Local Facility Management Zones (Zones 11 – 15 and 17 – 25), but not others (Zones 1 – 10 and 16) because those zones were determined to have already been developed or to have already met the standard. (i.e., subject to previously adopted master and/or specific plans). Some previously adopted master and/or specific plans found that full build-out under the plans would provide sufficient open space required at the time these plans were approved, specifically, 15% of all areas (regardless of any constraints such as slope). Accordingly, the CFIP found these zones did not need to meet the later-adopted open space performance standard of 15% of non-constrained land. The CFIP exemption for these zones was recognized in the individual Local Facility Management Plans decades ago. This methodology is consistent with traditional land use methodology which applies new standards prospectively. (See 2020/2021 Growth Management Program Monitoring Report p. 27; *Friends of H Street v. City of Sacramento* (1993) 20 Cal.App.4<sup>th</sup> 152, 169 [California’s planning statutes “address future growth, and do not require local governments to bring existing neighborhoods and streets into compliance with the general plan.”].)

The following are some key facts during the development of the open space standard:

- As part of the development of the Growth Management Program, the city identified areas that were, at the time, “urbanized” (developed areas) “urbanizing” (some development or some level of planning completed, such as an existing master plan) and “future urbanizing” (very little to no development and no existing master plan).
- A comparison of the Local Facilities Management Zones map and the 1986 Development Status Map shows that the zones where the open space standard is applicable (Zones 11 – 15 and 17 – 25) align, for the most part, with the areas identified in 1986 as “future urbanizing,” which is where future master plans would be required (e.g., Aviara, Bressi Ranch and Quarry Creek master plans) and is consistent with the 1985 committee recommendation for master plans to provide additional future open space.
  - The “urbanized” areas were already developed, and the “urbanizing” areas had previously approved development or master plans. Although the open space standard was not applied to the “urbanizing” areas, the existing approved master plans within these areas provided open space as required by city regulations in place at the time. Prior to the Growth Management Program and the open space standard, the city’s zoning ordinance required 15 percent of the total area of any master plan to be designated as open space. This 15 percent standard differs from the Growth Management open space standard because it applies to the total land area of a master plan and does not exclude environmentally constrained non-developable land.

Figure 5



### Common Questions About The Open Space Standard

Is there a 40 percent open space requirement?

It is a misconception that there is a standard that requires the city to provide 40 percent open space. There is no requirement or standard that requires 40 percent open space per individual projects or on a citywide basis.

Neither Proposition E nor the Citywide Facilities and Improvements Plan (CFIP) performance standards required 40 percent open space. Proposition E states “emphasis shall be given to ensuring good traffic circulation, schools, parks, libraries, open space, and recreational amenities.” The CFIP open space standard states “Fifteen percent of the total land area in the zone, exclusive of environmentally constrained non-developable land...concurrent with development.” The CFIP also states that Local Facilities Management Zones 1-10 and 16 “are already developed or meet or exceed the requirement” and are not subject to the CFIP open space standard. This methodology predates Proposition E, and was included in the CFIP, adopted by the City Council on September 23, 1986, by Resolution 8797.

A July 8, 1986, City Council staff report on the facility standards states: “compliance with this [open space] standard should result in approximately 35 to 40% of the total land area in the city being open space when the city is fully built out.” A couple years later, a June 27, 1988, staff report to an open space committee, stated that “staff has estimated that approximately 10,000 acres or 38.5% of the total land area in the city is projected to be set aside for open space uses.”

The shorthand estimate of 40% was simply derived by adding the 25 percent estimated constrained lands to the 15 percent GMP open space set-aside. However, this shorthand calculation did not take into account that the standard only applied to 14 of the 25 Local Facility Management Zones (CFIP, p. 46), rather than the entire city. The reference to 40 percent open space was an estimate, not a standard or goal. Today, 38 percent of Carlsbad is dedicated as open space.

Why doesn't the open space standard apply to Local Facilities Management Zone 9?

Local Facilities Management Zone 9 (Zone 9) is a good example of one of the “urbanizing” areas in 1986 where the open space standard was not applied. Zone 9 includes part of the Ponto area and the majority of the

zone is subject to the Poinsettia Shores Master Plan. This is an area where the city has received community comments stating that the zone does not meet the open space standard and more open space is needed. In 1986 the City Council determined that the open space needs for Zone 9 had been met and therefore the open space standard does not apply to Zone 9.

Zone 9 was an “urbanizing” area when the Growth Management Program was being developed. A master plan was approved for the area (Batiqitos Lagoon Educational Park Master Plan). The master plan met the open space standard required at the time (Zoning Ordinance), which is 15 percent of the total area of the master plan.

The following is a summary of actions related to Zone 9 that relate to the open space planned in that area:

- Oct. 1, 1985 – Batiqitos Lagoon Educational Park Master Plan approved by City Council and, as required by the zoning ordinance at the time, was required to provide a minimum 15 percent of the total master plan area as open space.
- May 6, 1986 – City Council staff report on development of the Growth Management Program:
  - City council directed staff, working in conjunction with the developer of Zone 9, to finalize a pilot local facility management program to serve as a format model for programs for the other zones. The Batiqitos Lagoon Educational Park Master Plan for Zone 9 had been approved the year before and it was a recent development plan to use as a model.
- June 24, 1986 – Growth Management Ordinance approved (Zoning Ordinance Chapter 21.90):
  - Section 21.90.030(g) allowed development of phase I of the Batiqitos Lagoon Educational Park Master Plan to proceed prior to approval of a Local Facility Management Plan for Zone 9, subject to certain conditions including that the developer agree to participate in the restoration of a significant lagoon and wetland resource area and make any open space dedications of property necessary to accomplish the restoration. The master plan developer did make the open space land dedications that were needed for the restoration of Batiqitos Lagoon.
- Sept. 16, 1986 – City Council approves the Citywide Facilities and Improvements Plan, including the open space standard with the clarification that the standard is not applicable in Zones 1-10 and 16.
- July 11, 1989 – City Council approves the Local Facilities Management Plan for Zone 9. Other than noting the existing open space within the zone, open space was not further analyzed in the plan, as the open space standard does not apply to Zone 9.
- Jan. 18, 1994 – City Council adopts an ordinance approving Poinsettia Shores Master Plan, which replaced the Batiqitos Lagoon Educational Park Master Plan. The related Planning Commission staff report (Oct. 20, 1993) evaluates open space in the master plan as follows:

“The Poinsettia Shores Master Plan will not adjust or modify any existing General Plan designated open space areas or boundaries. Of the project's 162.8 total acres, approximately 34.8 acres are natural lagoon/wetland habitat which have Open Space General Plan designations (planning areas "I", "K", and "L") and have already been dedicated in fee title to the State of California, State Lands Commissions in accordance with previous BLEP [Batiqitos Lagoon Educational Park] approvals. The master plan has additional open space totaling approximately 11 acres comprised of a community recreation center (planning area "M") and open space areas consisting of blufftop and roadway setbacks. The total master plan open space (approximately 46 acres) represents 28% of the entire master plan area. This exceeds the [Zoning Ordinance] requirement of at least 15% of the master plan

area (24.4 acres) to be set aside as open space. As outlined in the Citywide Facilities Improvement Plan and the Zone 9 Local Facility Management Plan, this master plan has complied with all open space requirements. The project is also consistent with the Open Space and Conservation Resource Management Plan and incorporates master plan trails and links with the Citywide Trails System as required. The master plan's frontage on the east side of Carlsbad Boulevard (planning areas "G" and "H") is the location for linkage with the Citywide Trails System. These planning areas will be required to provide for the trail link within the required 40-foot structural setback from Carlsbad Boulevard. ... On August 26, 1993, the master plan's open space program was reviewed by the City's Open Space Advisory Committee and unanimously supported..."

While the open space standard is not applicable to Zone 9, open space has been provided for the area, including private recreation areas, trails and a significant natural open space dedication for Batiquitos Lagoon<sup>1</sup>.

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<sup>1</sup> City of Carlsbad Planning Commission Staff Report dated Oct. 20, 1993 for MP 175(D)/GPA 91-05/LCPA 91-02/LFMP 87-09(A) Poinsettia Shores Master Plan.

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## SCHOOLS

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### Performance Standard

School capacity to meet projected enrollment within the Local Facility Management Zone (LFMZ) as determined by the appropriate school district must be provided prior to projected occupancy.

Note: public school facilities are not planned, funded, or constructed by the city.

### FY 2021-22 Facility Adequacy Analysis

All new residential development is required to verify that school capacity can meet the projected enrollment from the school district serving the development. To date, all school districts serving Carlsbad have verified they have capacity to serve development in the city.

### Buildout Facility Adequacy Analysis

Based on Chapter 3.11 of the 2015 General Plan Environmental Impact Report, for all school districts at all grade levels, capacity is expected to be sufficient for the buildout student population with no need for additional schools.

## SEWER COLLECTION SERVICES

### Performance Standard

Trunk-line capacity to meet demand, as determined by the appropriate sewer districts, must be provided concurrent with development.

### FY 2021-22 Facility Adequacy Analysis

Sewer collection system improvements are provided on a project-by-project basis concurrent with development. Currently, the City of Carlsbad’s sewer service area pipelines comply with the performance standard. The sewer agencies that provide sewer collection systems within the city include: Carlsbad, Leucadia Wastewater District and Vallecitos Water District. Each agency indicates that they currently have adequate conveyance capacity in place to meet Carlsbad’s sewer collection demands.

The City of Carlsbad is served by the following six major sewer interceptor systems. In four of these interceptor systems, wastewater flow capacity is shared with other agencies as listed in Table 17. For both the Vista/Carlsbad Interceptor and the Buena Interceptor, Carlsbad’s capacity rights increase in the downstream direction as they flow to the Encina Water Pollution Control Facility. Capacity rights increase from 3.3% to 50% for the Vista/Carlsbad Interceptor and from 18% to 35% in the Buena Interceptor. This system of interceptors provides adequate capacity to transport wastewater to EWPCF.

Table 17: Carlsbad Sewer Interceptors

Interceptor System	Sewer Districts Served	Carlsbad Capacity Rights <sup>1</sup>	2021-22 Average Daily Flows
<b>Vista/Carlsbad Interceptor</b>	City of Carlsbad City of Vista	Ranges from 1.0 MGD up to 41.8 MGD (3.3% - 50%)	3.39 MGD*
<b>Buena Interceptor<sup>2</sup></b>	City of Carlsbad Buena Sanitation Dist.	Ranges from 1.2 MGD up to 3.6 MGD (18% - 35%)	0.49 MGD
<b>Vallecitos Interceptor</b>	City of Carlsbad Buena Sanitation Dist. Vallecitos Water Dist.	5 MGD (24%)	1.61 MGD
<b>Occidental Sewer<sup>3</sup></b>	City of Carlsbad City of Encinitas Leucadia Wastewater Dist.	8.5 MGD (40%)	0.24 MGD
<b>North Agua Hedionda Interceptor</b>	City of Carlsbad	6 MGD (100%)	1.27 MGD <sup>4</sup>
<b>South Agua Hedionda Interceptor</b>	City of Carlsbad	4.7 MGD (100%)	0.91 MGD <sup>4</sup>

<sup>1</sup> Million gallons per day (MGD)

<sup>2</sup> Buena Sanitation District and the City of Carlsbad are negotiating the transfer of this facility to the City of Carlsbad upon City of Vista’s commissioning of their Buena Outfall Force Main, Phase III project.

<sup>3</sup> The downstream sections (NB8 and NB9) of the North Batiquitos Sewer, often referred to as Ponto Sewer and originally termed the Occidental Sewer

<sup>4</sup>Flows conveyed via Vista Carlsbad Interceptor to EWPCF

## Buildout Facility Adequacy Analysis

The City of Carlsbad 2019 Sewer Master Plan Update evaluated the sewer infrastructure needs of the Carlsbad sewer service area and identified facilities required to accommodate future sewer flows at buildout. The master plan identified the Vista/Carlsbad Interceptor and Buena Interceptor as requiring improvements to accommodate build-out demand (see below). Sewer trunk main adequacy is estimated by comparing wastewater flow projections to the capacity of the sewer system using a computer model. Annual sewer flow measurements are used to assess actual flows and to evaluate capacity in the sewers.

Collection system improvements to meet buildout conditions are identified at three locations: Faraday Avenue, Poinsettia Avenue and Kelly Drive. These projects are programmed in the Capital Improvement Program.

The adequacy of major sewer facilities for buildout conditions is summarized as follows:

**Vista/Carlsbad Interceptor:** The City's 2019 Sewer Master Plan Update indicates that portions of the Vista/Carlsbad (VC) Interceptor do not satisfy buildout system flows. Hydraulic model results indicate that the 36-inch diameter gravity mains of Reach VC-3 are insufficient to convey buildout flows. Most of reach VC-3 consists of 36-inch diameter gravity main and is scheduled for upsizing to 42 inches as a future Capital Improvement Program project to meet buildout flows.

**Buena Interceptor:** The Buena Interceptor is currently shared by Vista and Carlsbad and, although the city's wastewater flows are not projected to exceed its capacity rights, the combined flows of Buena Sanitation District and City of Carlsbad during peak wet weather periods exceed the design capacity criterion. As a result, Buena Sanitation District has constructed a parallel trunk sewer which will allow Buena Sanitation District flow to be diverted to the parallel trunk sewer. Construction was completed in 2021, however Buena Sanitation District has not yet regularly diverted flow to this sewer. When they do, the City of Carlsbad will be the only agency with flows remaining in the existing Buena Interceptor and peak wet weather flow at buildout conditions would reach 7.3 MGD or approximately 69 percent of pipe capacity.



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## WATER DISTRIBUTION SERVICES

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### Performance Standard

Line capacity to meet demand as determined by the appropriate water district must be provided concurrent with development. A minimum of 10-day average storage capacity must be provided prior to any development.

### FY 2021-22 Facility Adequacy Analysis

Carlsbad’s water distribution is provided by three agencies including the Carlsbad Municipal Water District (CMWD), which is a subsidiary district of the City of Carlsbad, serving 32.32 square miles (82.7 percent of the city), Olivenhain Municipal Water District (OMWD) serving 5.28 square miles (13.5 percent of the city), and Vallecitos Water District (VWD) serving 1.48 square miles (3.8 percent of the city). These districts indicate that they have adequate pipeline and storage capacity to meet the water distribution performance standard.

Water service demand requirements are estimated using a computer model to simulate two water distribution scenarios: 1) maximum day demand plus a fire event; 2) peak hour demand. This computer model was calibrated using actual flow measurements collected in the field to verify it sufficiently represents the actual water system.

Existing (2014 baseline year) and buildout (2040) daily demand as calculated in the CMWD 2019 Potable Water Master Plan are 24.1 MGD and 29.6 MGD, respectively. These were based on average daily demands of 15.1 MGD and 18.5 MGD and a peaking factor of 1.6. Within the CMWD service area, the actual existing average daily potable water demand has been much less than this for the previous five years as shown in Table 18:

Table 18: Water Distribution Average Daily Demand

Fiscal Year	MGD
2017-18	13.4
2018-19	12.4 <sup>1</sup>
2019-20	11.9
2020-21	12.8
2021-22	12.5

Water conservation by CMWD customers has resulted in an overall reduction in per capita consumption. Factors leading to this reduction include (1) an expansion of CMWD’s recycled water system beginning in 2008, (2) in 2009, a campaign was initiated to reduce customer consumption by the wholesale water agencies, (3) implementation of a new tiered water rate structure to encourage water conservation, and (4) voluntary and mandatory conservation measures in 2015 in response to drought conditions.

Based on the water model analysis prepared for the CMWD 2019 Potable Water Master Plan, future pipelines and water system facilities were identified to ensure water system improvements are constructed to accommodate future customers. In addition, funds for the construction of future facilities are included in the Capital Improvement Program. Therefore, the future water infrastructure is programmed to be in place at the time of need to ensure compliance with the performance standard.

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<sup>1</sup> Corrected demand for 2018-19 based on potable water sales data.

The 10-day storage requirement is part of the water distribution performance standard and a planning criterion to accommodate pipeline maintenance recommended by the San Diego County Water Authority. To meet the requirement, CMWD needs approximately 130 MG of storage capacity based on the average water demand and 185 MG for buildout conditions. CMWD has a total storage capacity of 242.5 MG which consists of 195 MG of storage capacity at Maerkle Dam and 47.5 MG of storage capacity in various storage tanks throughout the distribution system as shown in Table 19.

Table 19: Storage Tanks and Capacity

Facility Name	Year Built	Capacity (MG)
Santa Fe II Tank	1986	9
La Costa Tank	1985	6
Maerkle Tank	1991	10
TAP Tank	1985	6
D-3 Tank	1995	8.5
Ellery Tank	1972	5
Elm Tank	1972	1.5
Skyline Tank	1972	1.5
Maerkle Reservoir	1962	195

CMWD also has interagency agreements with OMWD, VWD and Oceanside to provide additional supply if needed. In 2004, the OMWD completed construction of a water treatment facility at the San Diego County Water Authority Emergency Storage Reservoir, which provides the storage necessary to meet the 10-day storage criterion for OMWD. VWD’s average day demand is 13.3 MGD with an existing storage capacity of 120.5 MG. Through interagency sharing arrangements, VWD can obtain additional water supplies to meet a 10-day restriction on imported water supply.

### Buildout Facility Adequacy Analysis

As proposed land development projects are reviewed by the city, the Water Master Plans from CMWD, OMWD, and VWD are consulted to check pipeline sizes and facility capacities to verify adequacy to support the water needs of the project and city. To comply with water master plan requirements, land development projects may be required to construct a master plan water project concurrent with construction of the development project.

The CMWD 2019 Potable Water Master Plan identifies facilities necessary to meet water demands for buildout within its service area. These consist of new pipelines and pipeline rehabilitation projects that are programmed into the Capital Improvement Program, some of which may be constructed concurrently with new development projects in the northeastern portion of the city.

The 2019 Potable Water Master Plan identified that no additional storage is required to meet the future storage requirements, due in part to conservation measures and expansion of CMWD’s recycled water system.